

REMARKS/ARGUMENTS**CLAIM REJECTIONS:****35 U.S.C. §112**

Claim 6 stands rejected under 35 U.S.C. §112. Claim 6 has been cancelled; this amendment should overcome this rejection.

35 U.S.C. §102(b)

Claims 1-3, 4, 6-12, 15-17, 22, 25, 27, 28, and 32-35 stand rejected under 35 U.S.C. §102(a or e) as being anticipated by U.S. Patent No. 6,767,939 (*Butler*). The Butler '939 Patent does not teach a concentration of higher than 0.1 wt% of zinc oxide for any purpose (See specification generally and Table 3). Thus, the Butler '939 Patent does not anticipate the claims as amended which all require more than 0.1 wt% of zinc oxide. See Claims 10 et seq., 27 et seq., and 37 et seq. Additionally, the Butler '939 Patent does not teach the use of dithiocarbamates, alkyl polysulfides, or ester polysulfides. Thus, the Butler '939 Patent does not anticipate the claims which require the use of such additives. See Claims 1 et seq., and Claim 4.

Claims 1-3, 4, 6-12, 15-17, 22, 25, and 30-34 stand rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,104,916 (*Trinh*). As the Examiner acknowledges, Trinh teaches the use of 0.03 to 1% of ZnO, and 0.05 to 1.4% of a vulcanization composition (for elastomers), less ZnO.

More precisely, Trinh teaches that 0.5 to 10% of an elastomer by weight of the bitumen is used, and that about 20% by weight of the vulcanization compound may be used relative to the elastomer. See Trinh at Col. 3, lines 1-4. The vulcanization composition is comprised by weight of: 0.5 parts to 3 parts mercaptobenzothiazole, 0.5 parts to 3 parts tetramethylthiuram disulfide, 3 parts to 5 parts zinc oxide, 1 part to 3 parts stearic acid, 1 part to 4 parts anti-oxidant, and 1 part to 5 parts vulcanization agent constituted by 0% to 100% sublimated sulfur, 0% to 75% sulfur donor selected from thiurams and dithiomorpholines, and 0% to 50% sulfenamide, with the weight ratio of sulfenamide to sulfur donor lying in the range 1/3 to 1. See Trinh at Col. 3, lines 1-4. Thus, the vulcanization composition on the low end is comprised of 7 parts to an upper

end range of 23 parts. Of these 7 to 23 parts, the composition is comprised of from 3 to 5 parts zinc oxide. Thus on the lower end, the asphalt is comprised of from 0.022% zinc oxide to 0.86% zinc oxide (3/7 parts of zinc oxide x 0.1% of vulcanization compound [20% of the 0.5 % elastomer to bitumen ratio], which equals a minimum of 0.022 % zinc oxide and 5/23 parts of zinc oxide x 2.0% of vulcanization compound [20% of the 10.0 % elastomer to bitumen ratio] and which equals a maximum of 0.86 % zinc oxide). Therefore, Claim has been amended to require greater than 0.86 wt% of zinc oxide, and Claims 10 and 27 have been amended to require greater than 1 wt% ZnO (in the event the Examiner is not persuaded by Applicants' foregoing explanation/calculations). Further, Trinh does not teach, suggest, or disclose the use of dithiocarbamates, alkyl polysulfides, or ester polysulfides. Thus, Trinh also does not anticipate amended Claims 1 et seq., or Claim 4. Newly added independent Claim 37 sets forth the 0.86 wt limitation for zinc oxide.

Therefore, no prima facie showing under 35 U.S.C. §102(b) has been made for such claims, and such claims are therefore allowable.

35 U.S.C. §103(a)

Claims 23-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,767,939 (*Butler*).

Claims 23-24 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,104,916 (*Trinh*).

Those references have been discussed above. There is no suggestion to modify or combine the teachings of *Butler* and *Trinh* to arrive at Applicants' claimed invention. However, even if there was a suggestion to combine such references, *Butler* and *Trinh* still do not teach, disclose, or suggest Applicants' invention, and there is no suggestion to modify the cited prior art references in order to arrive at Applicants' claimed invention. Thus, no prima facie case of obviousness has been made, and such claims are allowable. For the same reasons, Claims 36-39 are also allowable.

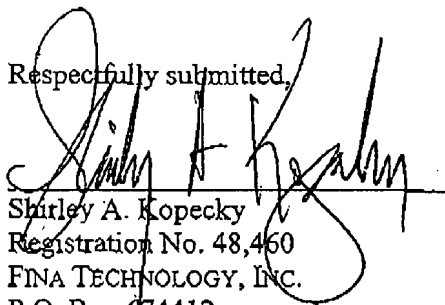
In conclusion, Applicants submit that the references cited in the Office Action, do not teach, show, or suggest the claimed features, and that the other rejections and

objections have been overcome. Applicants respectfully submit that the amended and newly added claims are now in condition for allowance, and respectfully request the same.

Dated

10/8/2007

Respectfully submitted,



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